Abstract

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Title of master thesis: Body composition parameters in dependence on the metabolism degrese in patiens with COPD

Chronic Obstructive Pulmonary Disease (COPD) is a very serious illness characterized by incompletely reversible airflow obstruction and lung emphysema. Contributes to its overall severity are extrapulmonary manifestations, especially cachexia and loss of lean tissue mass. Chronic inflammation of the respiratory airways and increased respiratory effort cause the hypermetabolic state to some patients with COPD. This thesis investigates the impact of increased metabolism on body composition in patients with COPD.

Our study included 50 COPD patients (38 men, 12 women) who were examined by bioelectrical impedance. In this study, we compared the parameters of body composition of men with resting energy expenditure REE > 130% (hereinafter Men over 130%) (n = 9) and the group of men with REE < 130 % (hereinafter Men below 130 %) (n = 29).

In the group of Men over 130 % we found a lower average value of body weight by 18 % compared to Men below 130 %. Total body and intracellular water were 12 % lower in Men over 130 %. Values of anhydrous and hydrated fat mass were 30 % lower in Men over 130 %. Lean tissue mass and index were not significantly different in group of men. Groups of Men over 130 % even had a 11% increased value of relative lean tissue mass.

We demonstrated significantly lower values of body weight, total body and intracellular water and fat mass in group of Men over 130 % in comparison with Men below 130 %.

Key words: chronic obstructive pulmonary disease, bioelectrical impedance, metabolism, body composition